

Newport News Composite Squadron

November 2009 Safety Briefing

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National Safety Council Calendar

NOVEMBER 2009

November 22 - 28	National Teens Don't Text & Drive Week	Etiquette and Leadership Institute	(888) 769-5150 eli@etiquette leadership.com	etiquetteleadership.com NSC Teens Drive Week Week
November 24 - December 31	Tie One On for Safety Campaign	Mothers Against Drunk Driving	(717) 657-3911 maddpa@ verizon.net	madd.org NSC Safety Campaign

National Teens Don't Text & Drive Week – Driving Safety
Tie One On for Safety Campaign – Driver Safety

Aviation Safety

AOPA AIR SAFETY FOUNDATION

ASF spotlight on VFR night flight



Once the sun has set and the night sky alights, you're in for a mostly magical and peaceful time aloft. And with the winter season's short days and long nights, you may find an afternoon flight spill into the night rather quickly, so why not enjoy this opportunity?

Stop! First review ASF's *Night VFR Flight Safety Spotlight* (www.asf.org/night-vfr), which offers plenty of night flying resources all in one convenient place. You'll want to see the big picture, especially when you're thinking of departing into a dark and moonless night. There may not be much to it when you're on an IFR flight plan. After all, you've got another set of eyes—in the form of ATC—on your flight, the airways ensure terrain and obstacle clearance, and you're prepared to complete the flight with an IFR approach at your destination.

But when you contemplate flying VFR at night, planning takes on another dimension, well beyond your usual VFR daytime flight planning—and it should. The GA night VFR accident record, as revealed by the

AOPA Air Safety Foundation's accident database, clearly shows proportionately many more VFR accidents at night than during the day. Be safe, bolster your knowledge, and fly prepared—brush up now (www.asf.org/nightvfr).

Did you know? Night VFR

When ground lights are sparse or the night is pitch-dark without a brilliant moon, your flight can become more challenging than you expected. Conditions may even resemble IMC and it could be difficult to distinguish landmarks, terrain, and weather. This is a good time to carefully plan. Ask yourself before any night flight:

- Are you night current?
- Do you feel comfortable with night takeoffs and landings?
- What's the possibility you'll encounter clouds? You may not be able to see clouds on a dark night.
- Is there rising terrain after departure, along your route, or on the approach path at your destination?
- Are there special departure or arrival procedures to consider?
- Do you have a mental picture of the approach and runway environment?

Fully brief your flight and understand weather conditions that can produce marginal visibility leading up to IMC levels. At night, marginal VMC should be considered a no-go for VFR operations.

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http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info/all_info/media/2009/info09016.pdf



U.S. Department
of Transportation
Federal Aviation
Administration

InFO

Information for Operators

InFO 09016
DATE: 10/01/09

Flight Standards Service
Washington, DC

http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info

An InFO contains valuable information for operators that should help them meet certain administrative, regulatory, or operational requirements with relatively low urgency or impact on safety.

Subject: Identifying Small Amounts of Frost, Snow, Ice or Slush on Aircraft and the Effects on Aircraft Control and Performance

Purpose: To emphasize the significance of unsafe conditions regarding performance and controllability caused by small amounts of contamination on aircraft aerodynamic and control surfaces.

Background: Despite Federal Aviation Administration (FAA) and industry publications cautioning pilots on the adverse affects that small amounts of contamination can have on the aerodynamic performance and control of aircraft, aircraft accidents and fatalities continue to be attributed to this cause. Some pilots and operators still mistakenly believe that aircraft are safe to fly with small amounts of frost or other contaminants adhering to the aerodynamic and/or control surfaces. Additionally some operators and pilots mistakenly believe that contamination that is not on or near the leading edge of the aerodynamic surface (e.g., the upper surface of the wing) is not a factor.

Discussion: Accident investigations, follow-up research, and experience show that miniscule amounts of frost, snow, ice, or slush on the aerodynamic and/or control surfaces of the aircraft can cause significant loss in lift and flight control capability. These very small amounts of contamination disrupt the smooth airflow over the airfoil surface and cause loss of lift or effectiveness of control surfaces. In several fatal accidents this loss of lift and controllability was not apparent until the aircraft climbed out of ground effect; at that time the aircraft began un-commanded roll and/or pitch movements from which the pilot could not recover. Any amount of contamination, no matter how spotty or thin in feel and site, nor its location, must be removed from all aerodynamic and control surfaces prior to flight.

Currently the best way to detect small amounts of contamination is by both visual and tactile (feel) check of the surfaces. One way to detect frost, snow, or ice is to test by scraping a fingernail or a similar implement across the aircraft airfoil surfaces. Consider the airfoil contaminated and remove the contamination prior to flight if any portion of the surface looks or feels any different than it does when it is dry, or when wet on an above freezing day.

When testing, consider that what might appear to be very small spots of contamination well aft of the leading edge of the airfoil surface can magnify separation of the smooth airflow over the airfoil surface. It must be removed prior to flight. Even the feel or appearance similar to ultra fine sandpaper on the airfoil is not acceptable.

Recommended Action: Directors of safety, directors of operations, and aviation instructors should ensure that their pilots and students understand that even small amounts of contamination can adversely affect the aerodynamic and control capability of the aircraft. They should emphasize the best practices for detecting small or thin amounts of contamination on the aircraft they operate. Pilots should become familiar with the appearance and feel of their aircraft's aerodynamic and control surfaces when dry and just wet so they have a reference to use as a baseline when checking for contamination. When conditions favor frost development and/or ground icing, pilots should be alert for small and/or thin amounts of contamination on the aerodynamic and flight control surfaces. Aircraft operating procedures should clearly convey that any and all frost, snow, ice, and slush contamination, no matter how spotty or thin, must be completely removed prior to flight.

Contact: Questions regarding the content of this InFO should be directed to Jerry C. Ostronic, Air Carrier Operations Branch, (AFS-220), via email at jerry.c.ostronic@faa.gov or telephone at 412-886-2580 Ext 332.

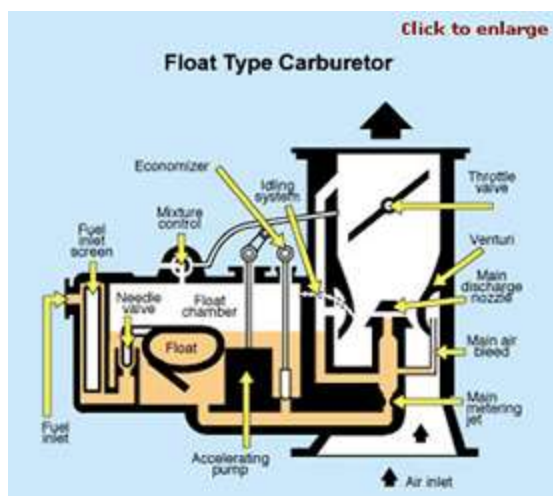
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Carburetor Icing

There's a quick fix for this unexpected visitor

By Jerry L. Robinson



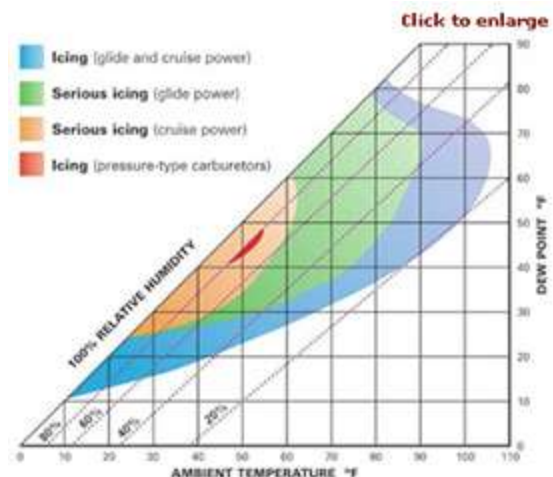
When you apply carburetor heat to melt ice that has formed in the throat, or venturi, of the carburetor, you may notice that the engine begins to run even rougher. This happens because the fuel mixture, already enriched because the ice is choking off some of the induction air flow, is suddenly made even richer by the addition of hot air.

This triple whammy can make the mixture so fuel-rich it will not ignite in the cylinders. The solution is to lean the mixture (and sometimes it takes some pretty radical leaning) and get a burnable mixture going to the cylinders.

Let's review some carburetor basics. Airflow through the carburetor venturi results in a pressure drop that draws fuel from the float chamber. The mixture control can vary the amount of fuel supplied for a given amount of air. Opening or closing the throttle actually changes the amount of air flow, and the carburetor automatically supplies (more or less) the

correct amount of fuel to mix with that amount of air.

Carb ice forms because the pressure drop in the venturi causes the air to "cool," and draw heat away from the surrounding metal of the carburetor venturi. Ice then can begin collecting on the cooled carburetor throat. This is the same principle that makes your refrigerator or air conditioner work.



Meanwhile, fuel being drawn through the fuel discharge nozzle into the airflow atomizes into very fine droplets that evaporate easily. When the fuel changes from a finely atomized liquid to a vapor it, too, cools—stripping more heat from the surrounding metal.

The result is that the carburetor's internal temperature may drop below freezing, even on a warm day. If the ambient air contains sufficient moisture (which can be the case even in seemingly dry air), frost (carburetor ice) can form on the inside of the carburetor.

It's important to understand that carburetor ice results not from a decrease in airflow through the carburetor, but the change in pressure caused by the restriction in the venturi.

The carburetor operates according to Bernoulli's principle. This principle states, in essence, that the static pressure of a non-compressible gas varies inversely with the velocity of the gas as it flows through a tube of varying cross-section. (Due to the laws of the conservation of energy, total pressure remains constant, and because total pressure is equal to static pressure plus dynamic pressure, then dynamic pressure must increase.)

Static pressure decreases as a result of the increase of the velocity of the air flow, not as a result of the change in the mass of air flowing through the tube.

Each time a normally aspirated, four-cycle engine (which describes the engines in most trainers and simple four-place aircraft) completes two crankshaft revolutions, it draws a volume of air equal to the engine's displacement (less small losses because of throttle position and system friction) through the carburetor. Given a constant throttle position, this volume essentially remains the same whether the carburetor is wide open or clogged with ice.

If the carburetor venturi is constricted because of ice, the velocity of the flow must increase because the amount of air flowing to the cylinders is constant. This increase in velocity is much more significant than the small decrease in mass flow caused by the restriction in the venturi because of ice.

An increase in velocity, Bernoulli says, will cause a further decrease in static pressure within the venturi, which means the ambient static pressure acting on the fuel in the float bowl will push more fuel through the metering jet, resulting in a richer mixture.

In most cases, pilots can get rid of accumulations of carburetor ice by using carb heat. Nothing more is necessary. This proves that the system works as designed—warming the carburetor venturi and body—especially if we are conscientious in applying carb heat before reducing power.

Also, many of today's training airplanes use Lycoming engines, which mount the carburetor on the oil sump. This gives the carburetor another source of heat. Because of this, Lycoming engines seem to be less susceptible to carb ice.

Rarely do engines quit when you apply carburetor heat, so pilots have trouble accepting that it can happen. I was an unbelieving pilot until the engines in two different airplanes stopped on me in the same week. I was able to get the engines running again because I remembered to pull the mixture almost to idle cut-off in both cases. The engines generated enough heat to melt the ice.

Having adequate heat to melt ice becomes a real problem during prolonged low-power operations because the engine just isn't generating enough heat in the system. There are several partial solutions to this problem.

First, apply carb heat well before you reduce power. This preheats the carburetor and keeps ice from forming in the first place. If you do this when descending from altitude and in the landing pattern, you can push carb heat off on short final, so you won't have to worry about it in the event of a go-around.

Second, if you need to make a prolonged, low-power descent, "clear" the engine periodically by applying power, heating up the carb heat system, and burning out any ice that may have accumulated.

Finally, if applying carb heat results in loss of power, or even in significant "roughening" of the engine, you must immediately open the throttle and pull the mixture control out far enough to smooth out the engine. As the ice melts, restore the mixture gradually to the original position.

Driving Safety

<http://ezinearticles.com/?Safety-Tips-When-Driving-on-Autumn-Leaves&id=3025830>

Safety Tips When Driving on Autumn Leaves

By [Darryl Reeve](#)

Autumn or also known as fall in North America is the season that marks the transition from summer to winter where some people will just head out to the roads to appreciate the beauty of nature. Some people loves to watch the leaves on the trees change their colors.

It is important for you to plan your leaf-watching expeditions early and please be extra cautious when driving over or parking on autumn leaves. It is highly recommended that you check the tires, brakes and wipers prior to your journey.

Most motorists change their driving accordingly when they drive over puddles that can cause the drivers to loss control of their vehicles but not many, especially the inexperienced ones, are aware of the dangers that can be caused by autumn leaves.

This is because even though the road surface is dry, leaves have the affinity to sustain moisture. Your car could slide if you try to stop because of the slippery surface on the leaves that are still wet. Braking, steering, acceleration and stopping can be difficult just because of a single layer of wet leaves.

The effect can be very dangerous at intersections and if the pile of leaves is located on a turn, your car can also skid and get out of control if you try to brake.

Dry leaves can also present hazard because piles of leaves can conceal potholes, curbs and street markings. You should not park your car on a pile of dry autumn leaves because according to some reports, fire could occur if the dry leaves get in contact with an extremely hot catalytic converter or a muffler of a vehicle.

Apart from that avoid driving over a pile of raked autumn leaves in residential areas because there is a possibility children hiding under the leaves.

PennDOT Offers Fall Driving Safety Tips

HARRISBURG, Pa., Oct. 1 /PRNewswire-USNewswire/ -- PennDOT reminds motorists that wet leaves, fog, sun glare and frost are a few driving hazards that they will encounter this fall but there are steps drivers can take to help make their travel safer.

"While it's not the traffic volumes that come with summer or the snow and ice of winter, the fall season presents motorists with several driving challenges," said PennDOT Secretary Allen D. Biehler, P.E. "Motorists can be proactive by paying attention to their surroundings and allowing extra time for their commutes."

Wet leaves on the roadway can be as slippery as ice. They also can obscure traffic lines and other pavement markings, making driving in unfamiliar areas particularly difficult. Motorists should slow down and use extra caution on leaf-covered roadways.

Fog and sun glare can present other fall hazards for drivers. When driving in fog, motorists should use low beam headlights since the high beam setting creates glare and reduces visibility. Not only will headlights enhance visibility of your vehicle, state law requires headlights be on when wipers are in use.

Sun glare can be most problematic during sunrise and sunset which coincide with morning and evening rush hours in the fall. The intense glare from the sun on the horizon can blind a driver, causing an unexpected traffic slowdown. Drivers can prepare for the glare by keeping a set of sunglasses handy, removing clutter from their sun visors and keeping the inside of their vehicle's windshield clean.

Also, morning frost and icy spots on the road can also cause problems as overnight temperatures drop toward freezing. Motorists should pay particular attention to bridges, overpasses and shaded areas on roadways where icy spots can form on the pavement. In addition to exercising caution while driving, motorists should clear their vehicles' windows of frost before travel. Morning drivers should also watch carefully for students walking along roadways or waiting for school buses.

PennDOT offers the following fall driving tips:

- Increase your following distance in severe weather, at dusk and dawn and when in an area with wet leaves. If you are being tailgated, let the other driver pass.
- Check your vehicle's headlights, taillights and turn signals to ensure they are working properly since darkness will be a part of many driver's morning and/or evening commutes. Make sure you turn on your headlights as the sunlight fades.
- Have your vehicle's heating and wiper systems checked to ensure they are working properly.
- Be sure you have tires with sufficient tread depth in case of an early season snow.
- Visit www.511pa.com or call 511 from any phone to check traffic conditions before heading out.

National Teens Don't text & Drive Week

<http://www.etiquetteleadership.com/media.cfm>

Top Six Texting Tips For Teens

- Think ahead: text *before* you get behind the wheel
- Have a passenger text for you
- If you must text while driving, stop the vehicle, then text
- Consider the danger of taking your eyes off the road even for few seconds
- Avoid *reading* text messages; it's as dangerous as *sending* text messages
- Texting is today's drunk driving hazard: Drive responsibly by using seat belts and honoring speed limits

Top Tips For Parents With Teens Who Text

- Have discussions with your teenager about the dangers of texting and cell phone use while driving
- Check out state and federal laws and explain them to your teenager
- Spend quality time with your teenager in the car
- Sign the entire family up for a defensive driving course
- Have your teenager sign a written contract about their safe driving skills and enforce consequences if rules are broken
- Be an active teacher and coach and set a good example for your teenager. Don't text or call anyone while driving!
- Discuss distractions of the road with your teenager: eating, drinking, radio, reaching for electronic devices, applying make up, reading

Tie One On for Safety Campaign

http://safetydailyadvisor.blr.com/archive/2009/11/06/training_MADD_drunk_driving.aspx

In 1986, MADD started its “Tie One on for Safety” campaign—which runs during the holiday season when drinking tends to increase—and involves drivers tying red ribbons on their vehicle antennas or placing red ribbon decals in vehicle windows. Tie your training into this campaign by addressing the problem of alcohol in the workplace and its impact on safety.

Personal Safety

<http://www.sjsu.edu/cdm/public/ThanksgivingFoodSafety.pdf>

THANKSGIVING FOOD SAFETY TIPS



Don't be a turkey! Practice safe food preparation procedures to reduce the risk of foodborne illness to your family this Thanksgiving holiday.

Meat and poultry, the centerpiece of most holiday meals, can be a source of foodborne disease unless handled and prepared properly. Unfortunately, the hidden dangers of bacterial contamination in perishable foods are often forgotten. Salmonella bacteria are commonly found on poultry and are among the most common sources of diarrheal disease in the U.S. Federal statistics show that millions of people become ill from foodborne diseases, and as many as 5,000 die each year as a result of micro-organisms in food.

Here are some guidelines to keep in mind:

Food Handling and Preparation

- Purchase only government-inspected meat and poultry products. Check the "sell by" date on all food you buy, and never buy packages if that date has passed.
- Wash your hands thoroughly before and after preparing any food product.
- Never thaw meat or poultry at room temperature. When thawing a frozen turkey, either keep it refrigerated on a tray, under cold running water, or in the microwave. When thawing in a microwave, finish cooking in a conventional oven immediately.
- Keep two cutting boards handy – one for preparing raw meat, poultry, and fish, and the other for cutting cooked food and preparing salads. After using utensils or cutting boards for raw food preparation or handling, thoroughly wash these items before using them for the preparation or handling of any other food.
- When preparing eggnog, hollandaise sauce, Caesar-salad dressing, or other recipes that call for raw or undercooked eggs, use a pasteurized egg product instead of regular eggs.

Turkey Tips

- Never cook a stuffed turkey or chicken in a microwave oven. Microwave cooking does not distribute heat evenly and can leave pockets of cold inside the poultry.
- Use a cooking thermometer to determine if the turkey is fully cooked. The meat should reach 180° Fahrenheit (F), and if the bird is stuffed, the stuffing must reach at least 165° F.
- If a fully cooked turkey is purchased, pick it up hot and bring it home to eat it immediately.

After the Feast

- Don't allow cooked food to sit out at room temperature for more than two hours. Leftovers should be refrigerated promptly after the meal. Freeze leftovers that won't be eaten within a few days. It's also a good idea to divide large amounts of leftovers into smaller portions for quick chilling. Leftover meat stored in the refrigerator should be eaten within three to four days.
- Reheat leftovers to 165° F throughout or until steaming hot. Soups, sauces, and gravies should be brought to a rolling boil for at least one minute.
- Never taste leftover food that looks or smells strange. When in doubt, throw it out!

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Holiday Season Safety

The National Safety Council offers these suggestions to help make your holiday season merry and safe.

Decorations

Wear gloves while decorating with spun glass "angel hair." It can irritate your eyes and skin. A common substitute is non-flammable cotton. Both angel hair and cotton snow are flame retardant when used alone. However, if artificial snow is sprayed onto them, the dried combination will burn rapidly. When spraying artificial snow on windows or other surfaces, be sure to follow directions carefully. These sprays can irritate your lungs if you inhale them.

Fireplaces

You should not try to burn evergreens or wreaths in the fireplace or in a wood stove to dispose of them. They are likely to flare out of control and send flames and smoke into the room. Also, do not burn wrapping paper in the fireplace because it often contains metallic materials which can be toxic if burned.

Candles

Never use lighted candles near trees, boughs, curtains/drapes, or with any potentially flammable item.

Toys and Gifts

Be especially careful when you choose toys for infants or small children. Be sure anything you give them is too big to get caught in the throat, nose or ears. Avoid toys with small parts that can be pulled or broken off. If you are giving toys to several children in one family, consider their age differences and the chances that younger children will want to play with older kids' toys.

Older adults

Select gifts for older adults that are not heavy or awkward to handle. For persons with arthritis, make sure the gift does not require assembly and can be easily opened and closed. Choose books with large type for anyone with vision impairment.

Plants

Small children may think that holiday plants look good enough to eat. But many plants can cause severe stomach problems. Plants to watch out for include: mistletoe, holly berries, Jerusalem cherry, and amaryllis. Keep all of these plants out of children's reach.

Food and Cooking

The holidays often mean preparing large meals for family and friends. Wash hands, utensils, sink, and anything else that has come in contact with raw poultry. Keep in mind that a stuffed bird takes longer to cook. For questions concerning holiday turkey

preparation and cooking call the USDA Meat and Poultry Hotline at 1-800-535-4555. Refrigerate or freeze leftovers in covered shallow containers (less than two inches deep) within two hours after cooking. Date the leftovers for future use.

Alcohol, Parties and Driving

Being a smart party host or guest should include being sensible about alcoholic drinks. More than half of all traffic fatalities are alcohol-related. Use designated drivers, people who do not drink, to drive other guests home after a holiday party.

Stress

The holiday season is one of the most stressful times of the year. You can't avoid stress completely, but you can give yourself some relief. Allow enough time to shop rather than hurry through stores and parking lots. Only plan to do a reasonable number of errands. When shopping, make several trips out to the car to drop off packages rather than trying to carry too many items. Take time out for yourself. Relax, read, or enjoy your favorite hobby at your own pace.

H1N1 Flu

<http://www.cdc.gov/h1n1flu/>

What You Can Do to Stay Healthy

- **Get vaccinated.** Vaccination is the best protection we have against flu. Seasonal flu vaccine is available now and initial doses of 2009 H1N1 flu vaccine also are available, with additional doses available later this year.
- Influenza is thought to **spread mainly person-to-person** through coughing or sneezing of infected people.
- **Take everyday actions to stay healthy.**
 - Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it.
 - Wash your hands often with soap and water. If soap and water are not available, use an alcohol-based hand rub.
 - Avoid touching your eyes, nose and mouth. Germs spread that way.
 - Stay home if you get sick. CDC recommends that you stay home from work or school and limit contact with others to keep from infecting them.
- **Follow public health advice** regarding school closures, avoiding crowds and other social distancing measures.
- Find healthy ways to **deal with stress and anxiety.**
- **Stay informed.** This website will be updated regularly as information becomes available.
- Call 1-800-CDC-INFO for more information.

Risk Management

http://www.nsc.org/news_resources/Resources/Documents/Young_Drivers.pdf



Young Drivers

In 2007, 7,650 people were killed in crashes involving young drivers between the ages of 15 and 20. According to the latest 2005 mortality figures from the National Center for Health Statistics, motor vehicle crashes are the leading cause of death for those between the ages of 15 and 20. Although young drivers represent only 6.5% of the nation's licensed drivers, they are involved in 12.2% of fatal crashes. The National Safety Council urges all parents to familiarize themselves with the risks associated with young, inexperienced drivers.

Facts to Know

- Traffic crashes are the number one cause of death among children and young adults.
- About 3,200 young drivers age 15-20 are killed every year in traffic crashes. More than 250,000 young drivers are injured.
- Young drivers are involved in fatal traffic crashes at over twice the rate as the rest of the population.
- Exceeding the posted speed limit or driving at an unsafe speed is the most common error in fatal accidents.
- About 30% of crashes killing young drivers involve alcohol.
- More than 1,000 young drivers lose their lives every year in crashes because they were alcohol impaired.
- It is illegal in every state for a person under 21 to buy and/or publicly possess alcoholic beverages.
- All states and Washington, D.C. have zero tolerance laws. It is illegal for a minor (under 21) to purchase alcohol, so no amount of alcohol should be allowed in an underage driver.
- Zero tolerance laws are typically set between .00 and .02 *per se* as opposed to .08 or .10 for drivers 21 and older. *Per se* means that regardless of outward signs of intoxication, the amount of alcohol detected in the driver determines legal intoxication.

Graduated Licensing Saves Lives

- Since inexperience is a leading factor in traffic crashes involving youth, graduated licensing makes good sense. This licensing system ensures that young drivers accumulate driving experience under controlled circumstances.
- Graduated licensing includes three steps: Learner, Provisional (Intermediate), and Full Licensure. Each of these steps includes certain restrictions tied to the permit.

Restrictions address things such as: the use of alcohol (zero tolerance), nighttime driving, teenage passengers, all occupants must wear safety belts, permit holder must remain crash and conviction free for a certain amount of time, etc.

- Currently, 44 states and the District of Columbia have implemented graduated driver licensing.

THE SENTINEL



OFFICIAL SAFETY NEWSLETTER OF CIVIL AIR PATROL

Heard of SAREX? What about 'SAFEX'? by Lt Col Bruce Brown, National Safety Team

We all know that the CAP SAREX is a call to practice skills and build teams for that which we are best known – search and rescue. Every month across the country, CAP volunteers apply knowledge and skills learned in aircrew clinics, ground search and rescue schools, and IC classes so that they are prepared to respond when the real call comes in.

It is NO ACCIDENT (pardon the pun) that CAP performs its Emergency Services mission so well...we practice hard! In most cases, we practice to a standard of professional performance and results. We may be volunteers, but we are not amateurs! Let's take a moment to reflect on what else we practice. We practice fire drills and evacuating our meeting places, right? We also practice first aid skills and CPR refresher; are you following me? Why do we practice? The short answer is because we want to be able to respond appropriately if called upon in an emergency (or urgent) situation. The slightly longer answer is we practice situations where we may not get regular real-world exposure, so that a short-notice call for help can be answered with maximum readiness/preparedness. Take a moment to think about what else in your life needs to be practiced or at least refreshed, before you go out and do that task for real.

Now, I would like to tell you a quick story and pose a challenge to all unit commanders and ICs out there. The challenge is this: incorporate a mishap scenario into your SAREXs and regular meeting nights. Convene your leadership, review your processes, and practice your mishap response up to, and including, simulating the submission of a mishap report (*read the last article in this issue to learn how to do that*). These drills will prepare you to handle mishap reporting under stressful conditions when you are likely to overlook important steps in a rarely practiced process. For example, does your wing and/or region have additional mishap reporting requirements to the commander or safety officer? Who are you going to call at the local level? Can you get Internet access? Do you remember that you have 48 hours to submit an

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on-line Form 78? A 'SAFEX' will teach you how to prioritize under stressful conditions. In other words, immediate Internet access may not be critical. But do you have to pick up the telephone right away and call the NOC? Where would you find this information? The answer is CAPR 62-2. I guarantee that if you write a scenario in which your squadron (or your practice mission) experiences a mishap, and you drill your response to this mishap, you will identify areas that can be improved before you have to do this for real. Your mishap response will be polished, professional, and second nature. I know this will work, and here is why...

Back in 2003 I was Chief of Safety at an Air Base in Europe. We were going to have the annual mass casualty exercise, also known as the disaster response drill. Every base agency, to include the dining facility had a role to play in this 'war game.' During the planning meetings for this exercise, the vice wing commander turned to me and asked how far the Safety Office wanted to take the simulation. I replied that I wanted to 'stand up the I-SIB.' This meant that we weren't just going to secure the scene and declare 'end-of-exercise' (ENDEX). I wanted to take the mishap response plan out of the desk drawer, blow the dust of it, alert the Interim Safety Investigation Board (I-SIB) members; and convene them in the I-SIB facility to begin the work of securing mishap evidence and interviewing witnesses. To my and my wing commander's knowledge, this had never been done. By the time we were finished with this exercise, we had identified several gaps in the execution of our mishap response plan; namely, that the facility listed in the 'plan' was not suitable for a safety board, many of the safety board support personnel (admin and IT) were not available due to conflicting duties in the base-wide mishap response and also that some primary board members didn't even know they were on the Interim Safety Investigation Board! It was better we discovered this during an exercise than during the real deal. Do you agree? I also found out that I needed practice in writing Air Force mishap messages ☹ This was a watershed moment only because I decided to put stress on a process never practiced, and only rarely implemented.

I challenge each of you to put stress on your mishap response processes. Write a realistic scenario and incorporate it into your next SAREX or squadron meeting night.* You could even have a 'safety drill' dedicated entirely to mishap response and reporting. The boundaries and constraints are only in your imagination. For example, you could simulate activating your Critical Incident Stress peers, if the scenario included risk of psychological injury (simulated) to unit members. By planning and executing 'SAFEX' you will reinforce a crucial skill, strengthen your team, and learn a lot...I guarantee it!

**** Make sure EVERYONE on the radio, over the phone and in the room KNOWS this is an "Exercise, Exercise, Exercise." You don't want any confusion on this point!***

Update on Applications for CAP/SE Support Staff by National HQ Safety Team

Right now, an interim team is facilitating the National Safety Officer transition from Col Letteer to Col Diduch. Nothing is set in stone with the present team, and a call for applications to serve on the volunteer support staff for the National Safety Officer is forthcoming. Please do not send in resumes or letters of interest until the positions are approved and the announcements are posted. We will get the word out to you when this happens. Application procedures will be the same as any other National Headquarters volunteer position. These processes will be reviewed at the time announcements are posted. Expect announcements for flight safety, transportation safety, and personal safety, i.e. bodily injury, specialists to assist the National Safety Officer.

Thank you for your patience as the transition team works to get the support staff onboard as soon as possible, so that the team can get down to business!

Safety Management Systems (SMS) by National HQ Safety Team

In last month's Sentinel, you were given a preview into the new safety team's goal to develop and deploy a Safety Management System (SMS) for Civil Air Patrol. This is a goal, but in order to evaluate its feasibility, we need to collect data. Data requested will directly support the calculation of metrics used to evaluate CAP's performance and to compare it to similar (aka 'analogous') organizations.

Here is a quick overview of the SMS. We want all members to have a basic understanding of this leadership and management tool because its proper implementation is the touchstone of a world-class flying organization, and it reaches across other areas of CAP (not just safety).

A hallmark of a SMS is a heavy reliance on data that is, in turn, used to help guide senior leader decisions across the enterprise; for example committing resources, developing training, partnering with other organizations and setting goals for the future. In the coming months, you might perceive more emphasis on data collection and relevant analysis to help reduce risk and support mission success; rest assured that this is not data collection for the sake of data collection. If a particular effort doesn't add value to the process, it will quickly be revised or dropped.

The FAA has an advisory circular that covers SMS. Note that adoption of SMS is voluntary for U.S. operators (certificated and non-certificated). SMS is a quality management approach to controlling risk; in other words, it is a methodology that can be applied consistently, over time, and reproduced in other organizations or other parts of the same organization. SMS meets CAP's *Core Value of Excellence* because

it “incorporates internal evaluation and quality assurance concepts that can result in more structured management and continuous improvement of operational processes” (FAA AC 120-92, dated 6/22/2006). If CAP is a SYSTEM of related moving parts working together for a common goal, i.e. mission success, then we must have some organizational attributes to help secure our desired safety outcomes:

- Ownership – Means that the right people take responsibility for their decisions and actions and are held accountable; decisions are made at the right level.
- Communication and Understanding – Procedures to provide clear instructions and expectations to all members of the organization.
- Oversight and Feedback – Supervisory controls that verify our processes produce the desired outcome.
- Metrics – Empirical data and comparison values let us know how we are doing.

Safety culture is the human side of a SMS and is discussed at length in the FAA advisory circular. The safety culture “triad” consists of psychological (how people think), behavioral (how people act) and organizational elements. The idea is for management and leadership to directly control the organizational element to positively influence the other two components for the desired outcome (mishap prevention and mission success). Our Core Values and CAPR 20-1 (Organization of Civil Air Patrol) provide some of this basic information. Now we turn to the meat of the SMS: The four pillars of safety management! The SMS is a management standard that is organized around four basic tenets of safety program management:

- Policy – CAP is a military-style organization and the Air Force’s auxiliary. We have plenty of policies and sometimes we just need to look around, remind ourselves of existing guidance, and make sure we comply!
- Safety Risk Management – ORM fits the bill and that’s all we’ll say about that for right now.
- Safety Assurance – This is the one piece that CAP needs to work on most, and we will construct that pillar in the coming months.
- Safety Promotion – This is not just a slogan or a campaign, but a commitment to a Core Value (like Excellence and Integrity). Why re-invent the wheel when it’s sitting out in the front yard already?

All four pillars are essential for an effective safety culture and SMS. The last element for the best possible SMS is a roof that is supported by the four pillars. The roof represents the integration of the four pillars and the seamless coverage that shields the organization from preventable losses. The main takeaway here is that CAP has almost all

of the components of the four pillars already. We just need to add a little more and then integrate it! Implementing SMS is a long-term endeavor and maintaining the SMS is a strategic commitment. This is a marathon not a sprint; you should hear the starter's pistol in the next few months!

Psychological Safety by National HQ Safety Team

Safety touches so many areas of any organization's enterprise. Whether the organization is a 'for-profit' commercial business, a military unit, or a public civilian institution, 'SAFETY' does not reside in one office. Safety officers manage all safety programs, but the real day-to-day safety is out there in every office, every technical specialty, and every mission we perform. What about 'psychological safety' and 'psychological mishap prevention'? Remember to learn as much as you can about Critical Incident Stress Management. Take a course, become a peer, learn how to inoculate yourself and others from some of our mission-related stresses. Learn how to recognize signs of distress and where to turn for help. For more information visit www.cism.cap.gov or contact your Wing or Region CISM coordinator.

How to Practice Reporting Mishaps by National HQ Safety Team

In the earlier article on 'SAFEX', we discussed "*simulating the submission of a mishap report.*" Under **no** circumstances should you go into the on-line safety system for purposes of demonstrating or practicing mishap reporting. When you go into our **on-line system**, you are **submitting for real**. So you simulate a report by using the 78 worksheet (attached to the end of this Sentinel issue, or available to print from the Safety Forms web page in e-Services); then fill in the form by hand. The only difference between practicing a mishap report and submitting a real report is that for a real mishap report you would transcribe the information from the worksheet onto the 'live' 78. When you study the worksheet and write down simulated information during a 'SAFEX' you learn what is needed for the on-line Form 78. This teaches you what information to have ready if you need to ever submit a real report.

Coming in Next Month's Sentinel

We will be back to reporting mishaps, including our mishap rate where available. Also, the December Sentinel will be reporting on holiday safety. Until then, stay safe!

Safety Form Worksheet

Wing Commanders or their designees will immediately notify the National Operations Center (NOC) at (888) 211-1812 of all accidents involving substantial damage, serious injury, or death.

Wing Mishap Date Mishap Time

Location of Mishap

Trip Authorized by CAP Orders/Form 99? ☐ Yes ☐ No ☐ N/A Temperature (F)

Mishap Resulted from CAP Activities? ☐ Yes ☐ No ☐ N/A Visibility (Miles)

Photographs Taken? ☐ Yes ☐ No ☐ N/A

Air Force Assigned Mission? ☐ Yes ☐ No Mission Number

Weather Conditions: ☐ Fog ☐ Rain ☐ Snow ☐ Sleet ☐ Ice ☐ Tornado

Purpose of Activity Form 79 Investigator

Account of Mishap

For Each Involved Person

Type ☐ Witness ☐ Driver ☐ Observer
☐ Scanner ☐ Passenger ☐ Pilot / PIC
☐ Co Pilot ☐ Student Pilot ☐ Check Pilot
☐ Inst. Pilot ☐ Victim/Part. ☐ Other

Injury Type ☐ None ☐ Minor ☐ Serious ☐ Fatal

Full Name

Grade / Civilian

Date of Birth

Phone Number

License Number

During Which Phase ☐ Aircraft / Vehicle
☐ Slips, Trips, Falls ☐ Sports / Recreation
☐ Heat / Cold Injuries ☐ Wildlife
☐ Illness ☐ First Aid

Pilot Info (If Applicable)

Total Time Total Last 6 Months

Total Last 3 Months Time this Model

Landings in Last 90 Days Flights in Last 90 Days

For Each Vehicle / Aircraft

NON-CAP Owned Wing

Vehicle / Tail No.

Damage

Estimated Repair Cost (\$)

Private Property Damage

Estimated Repair Cost (\$)

Veh / Aircraft Moved, if so note Authorizer

Vehicle Only - During Which Phase (Circle One)

Parking, Backing, Driving, Other/WX, Non-CAP, Wildlife, Unknown

Aircraft Only

NTSB Notified, if so note Date

Wind Direction (0-360) Speed (Knots)

Ceiling AGL (Feet) Shoulder Harness Used ☐

During Which Phase (Circle One)

Ground - Ground Handling, Ground - Engine/Systems, Ground - Taxi,
 Ground - Other/WX, Ground - Non-CAP, Ground - Maintenance,
 Ground - Unknown, Flight - Takeoff, Flight - Landing, Flight - Engine
 Systems, Flight - Flight Control, Flight - Wildlife, Flight - Other/WX